

Serial No.: 10/031,934

IN THE CLAIMS:

1. (currently amended) An array for retrofitting to a vessel to reduce its radar signature, the array capable of being fastened to surfaces of the vessel structure and comprising a plurality of elements having reflective surfaces with substantially planar faces, wherein when the array is fastened to the vessel structure the faces are oriented so as to coherently reflect an incident radar signal in a direction away from its direction of incidence for a given range of incident directions.

2. (original) An array according to claim 1 wherein the orientation of the faces is such that the faces are arranged so as to be oblique to the direction of incident radar for a given range of incident direction.

3. (previously amended) An array according to claim 1 wherein any edges defining the boundary of the reflective surfaces are oriented so as to be oblique to the direction of incident radar for a given range of incident directions.

4. (currently amended) An array according to claim 1 wherein the reflective surfaces are oriented so as to coherently reflect an incident radar signal by up to about 30 degrees.

5. (previously amended) An array according to claim 1 wherein the reflective surfaces are oriented so as to reflect an incident radar signal by up to about 15 degrees.

6. (currently amended) An array according to claim 1 wherein the reflective surfaces are oriented so as to coherently reflect an incident radar signal by up to about 8 to 10 degrees.

Serial No.: 10/031,934

7. (currently amended) An array according to claim 1 wherein the elements ~~are the element~~ is triangular, polyhedral, pyramidal or prismatic in shape or in cross-section.

8. (currently amended) An array according to claim 1 wherein the elements ~~are the element~~ is an elongated triangle, elongated polyhedron or elongated pyramid.

9. (currently amended) An array according to claim 1 wherein the elements ~~are the element~~ defines an apex disposed in a region which is forward relative to the planar faces of the reflective surfaces and collinear with respect to the incident radar signal.

10. (previously amended) An array according to claim 1 wherein the array comprises a plurality of uniform elements.

11. (original) An array according to claim 10 comprising a grid of uniformly spaced elements having reflective surfaces with substantially planar faces.

12. (previously amended) An array according to claim 1 formed from a lightweight material.

13. (previously amended) An array according to claim 1 wherein the elements are perforated.

14. (previously amended) An array according to claim 1 wherein the array is formed from a mesh material.

15. (currently amended) An array according to claim 1, wherein said array is in roll or sheer sheet form.

16. (original) An array according to claim 15 wherein said sheet includes stiffening means to enhance the rigidity or resilience of said sheet.

Serial No.: 10/031,934

17. (previously amended) An array according to claim 1 wherein the elements have a thickness in the range of from about 0.25mm to 15mm.

18. (original) An array according to claim 17 wherein the element is of a thickness in the range of from about 1mm to 6mm.

19. (previously amended) A vessel have a structure to which is attached at least one array as claimed in claim 1.

20. (currently amended) A method of retrofitting an array to a vessel to reduce its radar signature, the array being as claimed in claim 1, the method including the step of attaching to surfaces of the vessel structure the array wherein the arrangement when attached to surfaces of the vessel structure results in the faces being oriented so as to coherently reflect an incident radar signal in a direction away from its direction of incidence for a given range of incident directions.

21. (original) A method according to claim 20 wherein the array is fastened to the vessel structure by welding or by screw fastening to the structure.

22. (previously amended) A method according to claim 20, wherein the vessel structure comprises any surface on the structure capable of reflecting a radar signal.

23. (once amended) A method according to claim 20, wherein the arrangement of elements on the vessel structure is such that the facets of the elements reflect the incident radar signal away from a threat direction.

24. (previously amended) A method according to claim 20, wherein the array comprises a plurality of sheets capable of being joined together.

25. (currently amended) A method for retrofitting an array to a vessel to reduce its radar signature, the array being as claimed in claim 1, the method including

Serial No.: 10/031,934

the step of fastening to surfaces of the vessel structure in sheet form one or more arrays comprising a plurality of uniformly shaped elements being triangular, polyhedral, pyramidal or prismatic in shape and having edges defining the boundary of the reflective surfaces being such that the faces and the edges are oblique to the direction of incident radar for a given range of incident directions, the arrangement being such that when fastened to surfaces of the vessel structure the reflective surfaces are oriented so as to coherently reflect an incident radar signal by up to about 30 degrees away from its direction of incidence for a given range of incident directions.

26. (previously amended) A retrofitted vessel made by the method of claim 20.